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THREE DAY SICKNESS IN CATTLE

Three day sickness, also known as bovine ephemeral fever ("BEF"), is normally confined to Queensland and northern NSW with most cases seen between January and April. The disease usually runs a short course, hence the name "three day sickness" but can vary in severity and duration. Certain seasonal conditions (temperature, rain and wind) promote the southern spread of the midges and mosquitoes that carry the virus and a number of cases have been seen around Sydney (including at the Royal Easter Show) and as far south as Berry over the last few weeks.

BEF cannot be spread directly between cattle but is spread by the insects biting an infected animal and then biting another animal. Outbreaks occur when the disease spreads beyond its usual geographic boundaries into a naïve animal population (a population where the animals have no natural immunity). In an outbreak, the proportion of cattle infected is usually between 25% and 45% but can go as high as 100%.

Clinical Signs

As the name suggests, cattle with BEF will show signs of a fever (rectal temperature above 38.5 degrees; muscle shivering) as well as lethargy, loss of appetite, reduced milk production, increased respiratory rate and drooling. Lameness is also common, appearing as a stiff gait especially in the hind limbs. Cows in late pregnancy may also abort as a result of the fever.

Heavy cattle (large cows and bulls) are often more severely affected and may go down, which can cause secondary problems such as muscle damage from circulation compromise and nerve paralysis. These larger animals will lose condition rapidly and be slow to regain it. The fatality rate is usually low but deaths can occur. BEF also disrupts sperm production so infected bulls will have periods of reduced fertility.

Treatment

There is no specific treatment but anti-inflammatory injections (such as Tolfedine or Metacam) help to reduce the signs of fever. All affected cattle should be given shade, water and food until the disease has run its course. Downer cattle will require nursing care – soft bedding; regular lifting and turning to minimise muscle damage as well as injections of calcium.

Prevention

A vaccination is available which requires two initial doses 2-4 weeks apart to establish a protective immunity, followed by annual boosters to maintain that immunity. Like any vaccination, BEF vaccine is designed to prevent disease rather than cure it, so its effectiveness during an existing outbreak is unfortunately limited. Vaccination of bulls, large and heavily pregnant cows and valuable stud animals is the recommended strategy. Cattle that have had BEF develop a natural immunity that lasts for 2-4 years.

Another way to reduce the incidence of disease is to repel the biting insects that carry the virus, using insect repellents but this can be difficult to do effectively.

If you are concerned that your cattle may have BEF or wish to discuss vaccination, please contact Cowra Veterinary Centre.

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